111TH CONGRESS
2D SESSION

S. 20

To amend the Public Utility Regulatory Policies Act of 1978 to establish a Federal clean energy standard.

IN THE SENATE OF THE UNITED STATES

SEPTEMBER 29, 2010

Mr. GRAHAM introduced the following bill; which was read twice and referred to the Committee on Energy and Natural Resources

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A BILL

To amend the Public Utility Regulatory Policies Act of 1978 to establish a Federal clean energy standard.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,

SECTION 1. SHORT TITLE.

This Act may be cited as the ''Clean Energy Standard Act of 2010''.

SEC. 2. SENSE OF CONGRESS ON CLEAN ENERGY AND ENERGY EFFICIENCY.

It is the sense of Congress that the Federal Government should continue to support the use and expansion of clean energy and energy efficiency in—

(1) the production and use of energy;

(2) the reduction of greenhouse gas emissions; and

(3) the reduction of dependence on foreign oil.

SEC. 3. FEDERAL CLEAN ENERGY STANDARD.

(a) IN GENERAL.—Title VI of the Public Utility Regulatory Policies Act of 1978 (16 U.S.C. 2601 et seq.) is amended by adding at the end the following:

"SEC. 610. FEDERAL CLEAN ENERGY STANDARD.

''(a) DEFINITIONS.—In this section:

''(1) ADVANCED COAL GENERATION.—The term 'advanced coal generation' means the generation of electricity produced from coal by a new or existing coal generating facility that captures and permanently sequesters or stores at least 65 percent of greenhouse gases produced by the facility.

''(2) AFFILIATE.—The term 'affiliate' when used with respect to a person, means another person that directly or indirectly owns or controls, is owned or controlled by, or is under common ownership or control with, such person, as determined under regulations issued by the Secretary.

''(3) BASE QUANTITY OF ELECTRICITY.—

''(A) IN GENERAL.—The term 'base quantity of electricity' means the total quantity of

electricity sold by an electric utility to electric consumers in a calendar year.

''(B) EXCLUSIONS.—The term 'base quantity of electricity' does not include—

''(i) electricity generated by a hydroelectric facility (including a pumped storage facility but excluding qualified hydropower) owned by an electric utility or sold under contract or rate order to an electric utility to meet the needs of the retail customers of the utility; or

''(ii) electricity generated through the incineration of municipal solid waste owned by an electric utility or sold under contract or rate order to an electric utility to meet the needs of the retail customers of the utility.

''(4) BIOMASS.—The term 'biomass' means—

''(A) materials, precommercial thinnings, or invasive species from National Forest System land and public lands (as defined in section 103 of the Federal Land Policy and Management Act of 1976 (43 U.S.C. 1702)) that—

''(i) are byproducts of preventive treatments that are removed—

"(I) to reduce hazardous fuels;

"(II) to reduce or contain disease or insect infestation; or

"(III) to restore ecosystem health;

"(ii) would not otherwise be used for higher-value products; and

"(iii) are harvested in accordance with—

"(I) applicable law and land management plans; and

"(II) the requirements for—

"(aa) old-growth maintenance, restoration, and management direction of paragraphs (2), (3), and (4) of subsection (e) of section 102 of the Healthy Forests Restoration Act of 2003 (16 U.S.C. 6512); and

"(bb) large-tree retention of subsection (f) of that section; or

"(B) any organic matter that is available on a renewable or recurring basis from non-Federal land or land belonging to an Indian or Indian tribe that is held in trust by the United

States or subject to a restriction against alienation imposed by the United States, including—

"(i) renewable plant material, including—

"(I) feed grains;

"(II) other agricultural commodities;

"(III) other plants and trees; and

"(IV) algae; and

"(ii) waste material, other than paper commonly recycled, including—

"(I) crop residue;

"(II) other vegetative waste material (including wood waste and wood residues);

"(III) animal waste and byproducts (including fats, oils, greases, and manure); and

"(IV) food waste and yard waste; and

"(C) residues and byproducts from wood, pulp, or paper products facilities.

"(5) CLEAN ENERGY.—The term 'clean energy' means electric energy generated at a facility (including a distributed generation facility) from—

"(A) solar, wind, geothermal, or ocean energy;

"(B) biomass;

"(C) landfill gas;

"(D) qualified hydropower;

"(E) marine and hydrokinetic renewable energy (as defined in section 632 of the Energy Independence and Security Act of 2007 (42 U.S.C. 17211));

"(F) incremental geothermal production;

"(G) coal-mined methane;

"(H) qualified waste-to-energy;

"(I) qualified nuclear energy;

"(J) advanced coal generation;

"(K) eligible retired fossil fuel generation; or

"(L) another clean energy source based on innovative technology, as determined by the Secretary through rulemaking.

"(6) DISTRIBUTED GENERATION FACILITY.—The term 'distributed generation facility' means a facility at or near a customer site that provides electric energy to 1 or more customers for purposes other than resale other than to a utility through a net metering arrangement.

''(7) ELIGIBLE RETIRED FOSSIL FUEL GENERATION.—The term 'eligible retired fossil fuel generation' means the generation of electricity from any fossil fuel that is—

''(A) produced by a fossil fuel generating facility (including any petroleum coke or oil-fired steam unit or peaking facility) that had average carbon dioxide emissions during the 3-year period ending on the date of retirement in excess of 2,250 pounds per megawatt hour of generation; and

''(B) permanently retired during the period beginning on the date of enactment of this section and ending on January 1, 2015.

''(8) GEOTHERMAL ENERGY.—The term 'geothermal energy' means energy derived from a geothermal deposit (within the meaning of section 613(e)(2) of the Internal Revenue Code of 1986).

''(9) INCREMENTAL COST OF COMPLIANCE.—

''(A) IN GENERAL.—The term 'incremental cost of compliance' means—

''(i) the costs attributable to all retail sales of electricity incurred in a year by an electric utility to—

''(I) generate clean energy eligible for Federal clean energy credits;

''(II) acquire Federal clean energy credits; or

''(III) make alternative compliance payments in order to comply with the requirements of subsection (b); less

''(ii)(I) the costs the electric utility would have incurred to serve all of the retail customers of that electric utility in that year to generate or acquire additional electricity not eligible for clean energy credits if the requirements of subsection (b) did not apply to the electric utility; and

''(II) the costs of compliance with any comparable State clean energy requirement.

''(B) COST OF ELECTRICITY.—In calculating the incremental cost of compliance of an electric utility under this section, the Secretary shall take into account the reduction, if any, in the cost of electricity generated with fossil fuels associated with increased reliance on clean energy generation.

''(10) INCREMENTAL FOSSIL FUEL PRODUCTION.—The term 'incremental fossil fuel production' means the incremental quantity of electricity generated at an existing fossil fuel generation facility over the average quantity of electricity generated at the facility during the preceding 3-year period that is attributable to permanent efficiency improvements or capacity additions made on or after the date of enactment of this section, if there is no increase in greenhouse gas emissions associated with the efficiency improvements or capacity additions when compared to the average greenhouse gas emissions during the preceding 3-year period.

''(11) INCREMENTAL GEOTHERMAL PRODUCTION.—

''(A) IN GENERAL.—The term 'incremental geothermal production' means, for any year, the excess of—

''(i) the total kilowatt hours of electricity produced from a facility (including a distributed generation facility) using geothermal energy; over

''(ii) the average number of kilowatt hours produced annually at the facility for 5 of the previous 7 calendar years before

the date of enactment of this section after eliminating the highest and the lowest kilowatt hour production years in that 7-year period.

''(B) SPECIAL RULE.—A facility described in subparagraph (A) that was placed in service at least 7 years before the date of enactment of this section shall, commencing with the year in which that date of enactment occurs, reduce the amount calculated under subparagraph (A)(ii) each year, on a cumulative basis, by the average percentage decrease in the annual kilowatt hour production for the 7-year period described in subparagraph (A)(ii) with such cumulative sum, but not to exceed 30 percent.

''(12) INCREMENTAL HYDROPOWER.—

''(A) IN GENERAL.—The term 'incremental hydropower' means additional energy generated as a result of efficiency improvements or capacity additions made on or after January 1, 1992.

''(B) EXCLUSION.—The term 'incremental hydropower' does not include additional energy generated as a result of operational changes not directly associated with efficiency improvements or capacity additions.

''(C) MEASUREMENT AND CERTIFICATION.—Efficiency improvements and capacity additions referred to in subparagraph (A) shall be—

''(i) measured on the basis of the same water flow information used to determine a historic average annual generation baseline for the hydroelectric facility; and

''(ii) certified by the Secretary or the Federal Energy Regulatory Commission.

''(13) INCREMENTAL NUCLEAR PRODUCTION.—The term 'incremental nuclear production' means the incremental quantity of energy generated by an existing nuclear facility over the average quantity of energy generated at the facility during the preceding 3-year period that is attributable to permanent efficiency improvements or capacity additions made on or after the date of enactment of this section.

''(14) INDIAN LAND.—The term 'Indian land' has the meaning given the term in section 2601 of the Energy Policy Act of 1992 (25 U.S.C. 3501).

''(15) QUALIFIED HYDROPOWER.—

''(A) IN GENERAL.—The term 'qualified hydropower' means—

''(i) incremental hydropower;

"(ii) additions of capacity made on or after January 1, 2001, or the effective commencement date of an existing applicable State clean or renewable electricity standard program at an existing nonhydroelectric dam, if—

"(I) the hydroelectric project installed on the nonhydroelectric dam—

"(aa) is licensed by the Federal Energy Regulatory Commission, or is exempt from licensing, and is in compliance with the terms and conditions of the license or exemption; and

"(bb) meets all other applicable environmental, licensing, and regulatory requirements, including applicable fish passage requirements;

"(II) the nonhydroelectric dam—

"(aa) was placed in service before the date of enactment of this section;

''(bb) was operated for flood control, navigation, or water supply purposes; and

''(cc) did not produce hydroelectric power as of the date of enactment of this section; and

''(III) the hydroelectric project is operated so that the water surface elevation at any given location and time that would have occurred in the absence of the hydroelectric project is maintained, subject to any license requirements imposed under applicable law that change the water surface elevation for the purpose of improving the environmental quality of the affected waterway, as certified by the Federal Energy Regulatory Commission; and

''(iii) in the case of the State of Alaska—

''(I) energy generated by a small hydroelectric facility that produces less than 50 megawatts;

''(II) energy from pumped storage; and

''(III) energy from a lake tap.

''(B) STANDARDS.—Nothing in this paragraph or the application of this paragraph shall affect the standards under which the Federal Energy Regulatory Commission issues licenses for and regulates hydropower projects under part I of the Federal Power Act (16 U.S.C. 791a et seq.).

''(16) QUALIFIED NUCLEAR ENERGY.—The term 'qualified nuclear energy' means energy from a nuclear generating unit placed in service on or after the date of enactment of this section.

''(17) QUALIFIED WASTE-TO-ENERGY.—The term 'qualified waste-to-energy' means energy from the combustion of post-recycled municipal solid waste, or from the gasification or pyrolization of such waste and the combustion of the resulting gas at the same facility, if the owner or operator of the facility generating electricity from the energy provides to the Secretary, on an annual basis—

''(A) a certification that the facility is in compliance with all applicable Federal and State environmental permits;

''(B) in the case of a facility that commences operation before the date of enactment of this section, a certification that the facility meets emissions standards promulgated under section 112 or 129 of the Clean Air Act (42 U.S.C. 7412, 7429) that apply as of the date of enactment of this section to new facilities within the relevant source category; and

''(C) in the case of the combustion, pyrolization, or gasification of municipal solid waste, a certification that each local government unit from which such waste originates operates, participates in the operation of, contracts for, or otherwise provides for, recycling services for residents of the local government unit.

''(b) CLEAN ENERGY AND ENERGY EFFICIENCY REQUIREMENT.—

''(1) REQUIREMENT.—

''(A) IN GENERAL.—Subject to subparagraph (B), each electric utility that sells electricity to electric consumers for a purpose other than resale shall obtain a percentage of the base quantity of electricity the electric utility

sells to electric consumers in any calendar year from clean energy or energy efficiency.

''(B) PERCENTAGE.—Except as provided in section 611, the percentage obtained in a calendar year under subparagraph (A) shall not be less than the amount specified in the following table:

''Calendar year:	**Minimum annual percentage:**
2013 and 2014	13
2015 through 2019	15
2020 through 2024	20
2025 through 2029	25
2030 through 2034	30
2035 through 2039	35
2040 through 2044	40
2045 through 2049	45
2050	50.

''(2) MEANS OF COMPLIANCE.—An electric utility shall meet the requirements of paragraph (1) by—

''(A) submitting to the Secretary clean energy credits issued under subsection (c);

''(B) submitting Federal energy efficiency credits issued under subsection (i), except that those credits may not be used to meet more than 25 percent of the requirements under paragraph (1) in any calendar year;

''(C) making alternative compliance payments to the Secretary at the rate of 3.5 cents per kilowatt hour (as adjusted for inflation

under subsection (g)) if the electric utility does not elect to petition the Secretary to waive the requirements under subsection (d)(3)(C); or

''(D) a combination of activities described in subparagraphs (A), (B), and (C).

''(3) PHASE-IN.—The Secretary shall prescribe, by regulation, a reasonable phase-in of the requirements of paragraph (1) as the requirements apply to an electric utility that becomes subject to this section on or after January 1, 2013.

''(c) FEDERAL CLEAN ENERGY AND ENERGY EFFICIENCY CREDIT TRADING PROGRAMS.—

''(1) IN GENERAL.—Not later than January 1, 2011, the Secretary shall establish a Federal clean energy credit trading program, and a Federal energy efficiency credit trading program, under which electric utilities shall submit to the Secretary Federal clean energy credits and Federal energy efficiency credits to certify the compliance of the electric utilities with subsection (b)(1).

''(2) ADMINISTRATION.—As part of the program, the Secretary shall—

''(A) issue clean energy credits to generators of electric energy from clean energy, regardless of whether the energy is transmitted

over the national interstate transmission system;

"(B) to the extent that clean sources of electricity are used in combination with other sources of energy, issue credits only to the extent that the electricity generated is from clean energy resources;

"(C) issue clean energy credits to electric utilities associated with State clean energy standard compliance mechanisms pursuant to subsection (h);

"(D) issue energy efficiency credits pursuant to subsection (i);

"(E) subject to subparagraph (F), ensure that a kilowatt hour, including the associated clean energy credit or energy efficiency credit, shall be used only once for purposes of compliance with this Act;

"(F) allow double credits for generation from facilities on Indian land, and triple credits for generation from small clean energy distributed generators no larger than 1 megawatt, except that no distributed clean energy generation facilities on Indian land shall receive a greater number of credits than triple credits;

''(G) ensure that, with respect to a purchaser that, as of the date of enactment of this section, has a purchase agreement from a clean energy facility placed in service before that date, the credit associated with the generation of clean energy under the contract is issued to the purchaser of the electric energy to the extent that the contract does not already provide for the allocation of the Federal credit;

''(H) in the case of eligible retired fossil fuel generation, issue 0.25 credits per kilowatt hour during the 3 year-period beginning on the date of retirement based on the average annual quantity of electricity generated by eligible retired fossil fuel generation during the final 3 years of operation of the facility;

''(I) calculate the quantity of clean energy credits issued for advanced coal generation, which shall be equal to the product obtained by multiplying—

''(i) the kilowatt hours of electricity generated by a facility and supplied to the grid during the prior year; by

''(ii) during the same year, the ratio of—

''(I) the quantity of carbon dioxide captured from the facility and sequestered; bears to

''(II) the sum of—

''(aa) the quantity of carbon dioxide captured from the facility and sequestered; and

''(bb) the quantity of carbon dioxide emitted from the facility;

''(J) issue double clean energy credits in the case of the first 5 new advanced coal generation facilities that permanently sequester a minimum of 1,000,000 tons per year of carbon dioxide into deep geologic formations;

''(K) issue double credits in the case of the first 5 retrofitted coal plants that are advanced coal generators, if the retrofitted facilities capture at least 200 MWe equivalent of flue gas and sequester carbon dioxide into deep geologic formations;

''(L) in the case of credits issued under subparagraphs (J) and (K), if the qualifying project uses captured carbon dioxide for purposes of enhanced hydrocarbon recovery, reduce the credits by .25; and

''(M) issue clean energy credits for the useful electric and thermal output from a facility that produces the output from biomass, using a system under which—

''(i) in the case of efficiency that is less than 50 percent, 1 clean energy credit is awarded;

''(ii) in the case of efficiency that is 50 percent or more but less than 70 percent, 1.1 clean energy credits are awarded for the same unit output;

''(iii) in the case of efficiency that is 70 percent or more but less than 90 percent, 1.25 clean energy credits are awarded for the same unit output; and

''(iv) in the case of efficiency that is 90 percent or more, 1.5 clean energy credits are awarded for the same unit output.

''(3) CLEAN ENERGY CREDIT BORROWING.—At any time before the end of calendar year 2015 and any subsequent calendar year, an electric utility that has reason to believe the electric utility will not have sufficient clean energy credits to comply with subsection (b) may—

''(A) submit to the Secretary a plan that demonstrates that the electric utility, as a consequence of having facilities under construction at the time the plan is submitted, will earn sufficient clean energy credits during the subsequent 3 calendar years to meet the requirements of subsection (b) for calendar year 2015 and the subsequent calendar years affected; and

''(B) on approval of the plan by the Secretary, apply clean energy credits that the plan demonstrates will be earned during the subsequent 3 calendar years to meet the requirements of subsection (b) for each calendar year affected.

''(4) CREDIT TRADING AND BANKING.—

''(A) IN GENERAL.—An electric utility that holds clean energy credits in excess of the quantity of credits needed to comply with subsection (b) may transfer the credits to another electric utility in the same utility holding company system or sell the credits to another electric utility.

''(B) CARRYING FORWARD.—A clean energy credit for any year that is not used to satisfy the minimum clean energy requirements of

subsection (b) for that year may be carried forward for use in any subsequent year.

''(5) DELEGATION OF MARKET FUNCTION.—

''(A) IN GENERAL.—The Secretary may delegate to—

''(i) an appropriate market-making entity the administration of a national clean energy credit market and a national energy efficiency credit market for purposes of creating a transparent national market for the sale or trade of clean energy credits and energy efficiency credits; and

''(ii) regional entities the tracking of dispatch of clean energy generation.

''(B) ADMINISTRATION.—Any delegation under subparagraph (A) shall ensure that the tracking and reporting of information concerning the dispatch of clean energy generation is transparent, verifiable, and independent of any generation or load interests with obligations under this section.

''(d) ENFORCEMENT.—

''(1) CIVIL PENALTIES.—Any electric utility that fails to meet the requirements of subsection (b) shall be subject to a civil penalty.

''(2) AMOUNT OF PENALTY.—The amount of the civil penalty shall be equal to the product obtained by multiplying—

''(A) the number of kilowatt hours of electric energy sold to electric consumers in violation of subsection (b); by

''(B) 200 percent of the value of the alternative compliance payment, as adjusted for inflation under subsection (g).

''(3) MITIGATION OR WAIVER.—

''(A) PENALTY.—

''(i) IN GENERAL.—The Secretary shall mitigate or waive a civil penalty under this subsection if the electric utility is unable to comply with subsection (b) due to a reason outside of the reasonable control of the electric utility.

''(ii) AMOUNT.—The Secretary shall reduce the amount of any penalty determined under paragraph (2) by the amount paid by the electric utility to a State for failure to comply with the requirement of

a State clean or renewable energy program if the State requirement is greater than the applicable requirement of subsection (b).

''(B) REQUIREMENT.—The Secretary may waive the requirements of subsection (b) for a period of up to 5 years with respect to an electric utility if the Secretary determines that the electric utility cannot meet the requirements due to a hurricane, tornado, fire, flood, earthquake, ice storm, or other natural disaster or act of God beyond the reasonable control of the utility.

''(C) RATEPAYER PROTECTION.—

''(i) IN GENERAL.—Subject to clause (ii), effective beginning June 1, 2013, and not later than June 1 of each year thereafter, an electric utility may petition the Secretary to waive, for the following compliance year, all or part of the requirements of subsection (b) in order to limit the rate impact of the incremental cost of compliance of the electric utility to not more than 4 percent per retail customer in any year.

"(ii) REQUIREMENTS.—

"(I) EXHAUSTION OF OPPORTUNITIES.—The Secretary may waive all or part of the requirements of subsection (b) only on a demonstration by the petitioner that the petitioner has exhausted all opportunities under this section to comply with the requirements of subsection (b).

"(II) LIMITATIONS.—Any waiver granted by the Secretary under this subparagraph shall be limited to the maximum extent practicable while ensuring that the increased cost of compliance does not exceed 4 percent per retail customer for any year.

"(D) VARIANCE.—A State public utility commission or electric utility may submit an application to the Secretary that requests a variance from the requirements of subsection (b) for 1 or more calendar years (including suspension or reduction of the requirements) on the basis of transmission constraints preventing delivery of clean energy.

"(4) PROCEDURE FOR ASSESSING PENALTY.—The Secretary shall assess a civil penalty under this subsection in accordance with the procedures prescribed by section 333(d) of the Energy Policy and Conservation Act (42 U.S.C. 6303(d)).

"(e) ALTERNATIVE COMPLIANCE PAYMENTS.—

"(1) IN GENERAL.—An electric utility may satisfy the requirements of subsection (b), in whole or in part, by submitting in accordance with this subsection, in lieu of each Federal clean energy credit or megawatt hour of demonstrated total annual electricity savings that would otherwise be due, a payment equal to the amount required under subsection (b) in accordance with such regulations as the Secretary may promulgate.

"(2) PAYMENT TO STATE FUNDS.—Payments made under this subsection shall be made directly to the 1 or more States in which the electric utility is located, in proportion to the base quantity of a retail electric supplier that is within each applicable State, if the payments are deposited directly into a fund within the treasury of the State for use in accordance with paragraph (3).

''(3) USE OF GRANTS.—The Governor of any State may expend amounts in a State clean energy escrow account solely for purposes of—

''(A) increasing the quantity of electric energy produced from a clean energy source in the State, including nuclear and advanced coal technologies for carbon capture and sequestration;

''(B) promoting the deployment and use of electric drive vehicles in the State, including the development of electric drive vehicles and batteries; and

''(C) offsetting the costs of carrying out this section paid by electric consumers in the State through—

''(i) direct grants to electric consumers; or

''(ii) energy efficiency investments.

''(4) INFORMATION AND REPORTS.—As a condition of providing payments to a State under this subsection, the Secretary may require the Governor to keep such accounts or records, and furnish such information and reports, as the Secretary determines are necessary and appropriate for determining compliance with this subsection.

''(f) EXEMPTIONS.—

''(1) IN GENERAL.—During any calendar year, this section shall not apply to an electric utility—

''(A) that sold less than 4,000,000 megawatt hours of electric energy to electric consumers during the preceding calendar year, except that sales to an affiliate, lessee, or tenant of the electric utility shall not be treated as sales to electric consumers under this paragraph; or

''(B) in Hawaii.

''(2) ADMINISTRATION.—

''(A) VOLUNTARY COVERAGE.—Paragraph (1) shall not apply to an electric utility described in paragraph (1) that voluntary elects to be covered by this section.

''(B) SALE OF CLEAN ENERGY CREDITS.—An electric utility that is not covered by this section and has not elected to be covered by this section shall not be eligible to sell any credits generated pursuant to this section to any other person.

''(g) INFLATION ADJUSTMENT.—Not later than December 31 of each year beginning in 2011, the Secretary

shall adjust for inflation the rate of the alternative compliance payment under subsection (b)(2)(C).

''(h) STATE PROGRAMS.—

''(1) IN GENERAL.—Subject to paragraph (2), nothing in this section diminishes any authority of a State or political subdivision of a State to adopt or enforce any law or regulation respecting clean energy or energy efficiency, or the regulation of electric utilities.

''(2) COMPLIANCE.—Except as provided in subsection (d)(3), no such law or regulation shall relieve any person of any requirement otherwise applicable under this section.

''(3) COORDINATION.—The Secretary, in consultation with States having such clean energy and energy efficiency programs, shall, to the maximum extent practicable, facilitate coordination between the Federal program and State programs.

''(4) REGULATIONS.—

''(A) IN GENERAL.—The Secretary, in consultation with States, shall promulgate regulations to ensure that an electric utility that is subject to the requirements of this section and is subject to a State renewable energy or clean

energy standard receives clean energy credits if—

"(i) the electric utility complies with the State standard by generating or purchasing clean energy or renewable energy certificates or credits representing clean energy; or

"(ii) the State imposes or allows other mechanisms for achieving the State standard, including the payment of taxes, fees, surcharges, or other financial obligations.

"(B) AMOUNT OF CREDITS.—The amount of credits received by an electric utility under this subsection shall equal—

"(i) in the case of subparagraph (A)(i), the quantity of clean energy resulting from the generation or purchase by the electric utility of clean energy; and

"(ii) in the case of subparagraph (A)(ii), the pro rata share of the electric utility, based on the contributions to the mechanism made by the electric utility or customers of the electric utility, in the State, of the quantity of clean energy resulting from those mechanisms.

''(C) PROHIBITION ON DOUBLE COUNTING.—The regulations promulgated under this paragraph shall ensure that a kilowatt hour associated with a clean energy credit issued pursuant to this subsection shall not be used for compliance with this section more than once.

''(i) ENERGY EFFICIENCY CREDITS.—

''(1) DEFINITIONS.—In this subsection:

''(A) CUSTOMER FACILITY SAVINGS.—The term 'customer facility savings' means a reduction in the consumption of end-use electricity at a facility of an end-use consumer of electricity served by an electric utility, as compared to—

''(i) consumption at the facility during a base year, taking into account reductions attributable to causes other than energy efficiency investments (such as economic downturns, reductions in customer base, favorable weather conditions, or other such causes); or

''(ii) in the case of new equipment (regardless of whether the new equipment replaces existing equipment at the end of the useful life of the existing equipment), consumption by similar equipment of average

efficiency available for purchase at the time that new equipment is acquired.

''(B) ELECTRICITY SAVINGS.—The term 'electricity savings' means—

''(i) customer facility savings of electricity consumption adjusted to reflect any associated increase in fuel consumption at the facility;

''(ii) reductions in distribution system losses of electricity achieved by a retail electricity distributor, as compared to losses attributable to new or replacement distribution system equipment of average efficiency (as defined by the Secretary by regulation); and

''(iii) the output of new combined heat and power systems, to the extent provided under paragraph (5).

''(C) QUALIFIED ELECTRICITY SAVINGS.—The term 'qualified electricity savings' means electricity saving that meet the measurement and verification requirements of paragraph (4).

''(2) PETITION.—On petition by the Governor of a State or, in the case of the power service area of the Tennessee Valley Authority, the Board of Di-

rectors of the Tennessee Valley Authority, the Secretary shall allow up to 25 percent of the requirements of an electric utility under subsection (b)(1) associated with the sales of electricity of the utility in the State to be met by submitting Federal energy efficiency credits issued pursuant to this subsection.

''(3) ISSUANCE OF ENERGY EFFICIENCY CREDITS.—

''(A) IN GENERAL.—The Secretary shall issue energy efficiency credits for qualified electricity savings achieved in States described in paragraph (2) in accordance with this subsection.

''(B) QUALIFIED ELECTRICITY SAVINGS.—Subject to subparagraph (C), in accordance with regulations promulgated by the Secretary, the Secretary shall issue credits for—

''(i) qualified electricity savings achieved by an electric utility on or after the date of enactment of this section; and

''(ii) qualified electricity savings achieved by other entities (including State agencies) on or after the date of enactment of this section if—

''(I) the measures used to achieve the qualified electricity savings were installed or placed in operation by the entity seeking the credit; and

''(II) an electric utility eligible to receive efficiency credits did not pay a substantial portion of the cost of achieving the qualified electricity savings (unless the utility has waived any entitlement to the credit).

''(C) STANDARDS.—No credits shall be issued for electricity savings achieved as a result of compliance with a national, State, or local building, equipment, or appliance efficiency standard.

''(4) MEASUREMENT AND VERIFICATION OF ELECTRICITY SAVINGS.—Not later than January 2012, the Secretary shall promulgate regulations regarding the measurement and verification of electricity savings under this subsection, including regulations covering—

''(A) procedures and standards for defining and measuring electricity savings that will be eligible to receive credits under paragraph (3), which shall—

''(i) specify the types of energy efficiency and energy conservation that will be eligible for the credits;

''(ii) require that energy consumption for customer facilities or portions of facilities in the applicable base and current years be adjusted, as appropriate, to account for changes in weather, level of production, and building area;

''(iii) account for the useful life of electricity savings measures;

''(iv) include specified electricity savings values for specific, commonly-used efficiency measures; and

''(v) exclude electricity savings that—

''(I) are not properly attributable to measures carried out by the entity seeking the credit;

''(II) have already been credited under this section to another entity; or

''(III) do not result from actions not intended to achieve electricity savings;

''(B) procedures and standards for third party verification of reported electricity savings; and

''(C) such requirements for information, reports, and access to facilities as may be necessary to carry out this subsection.

''(5) COMBINED HEAT AND POWER.—

''(A) IN GENERAL.—Under regulations promulgated by the Secretary, the increment of electricity output of a new combined heat and power system that is attributable to the higher efficiency of the combined system (as compared to the efficiency of separate production of the electric and thermal outputs), shall be considered electricity savings under this subsection.

''(B) EXISTING SYSTEMS.—In addition to subparagraph (A), the regulations shall apply to the increment of electricity output of an existing combined heat and power system that is attributable to permanent efficiency improvements or capacity additions.

''(6) INCREMENTAL NUCLEAR AND INCREMENTAL FOSSIL FUEL PRODUCTION.—

''(A) IN GENERAL.—Subject to subparagraph (B), under regulations promulgated by

the Secretary, the increment of electricity output attributable to incremental nuclear production and incremental fossil fuel production shall be considered electricity savings under this subsection.

''(B) LIMITATION.—The increment of electricity output described in subparagraph (A) shall meet not more than 10 percent of the total obligation of an electric utility under subsection (b).

''(j) BIOMASS HARVESTING AND SUSTAINABILITY.—The provisions of this section relating to biomass shall be administered in accordance with section 203(e) of the Energy Policy Act of 2005 (42 U.S.C. 15852(e)).

''(k) LOANS FOR PROJECTS TO COMPLY WITH FEDERAL CLEAN ENERGY STANDARD.—

''(1) PURPOSES.—The purposes of this subsection are—

''(A) to reduce the cost incurred by electric utilities in complying with the requirements of this section; and

''(B) to minimize the impact of the requirements on electricity rates for consumers.

''(2) LOANS.—The Secretary shall make loans available to electric utilities to carry out qualified

projects approved by the Secretary to comply with the requirements of this section.

''(3) QUALIFIED PROJECTS.—

''(A) IN GENERAL.—A loan may be made under this subsection for a project—

''(i) to construct a clean energy generation facility;

''(ii) to install an energy efficiency or electricity demand reduction technology; or

''(iii) to carry out any other project approved by the Secretary that the Secretary determines is consistent with the purposes of this subsection.

''(B) DISAPPROVAL.—The Secretary may disapprove an application for a loan for a project under this subsection if the Secretary determines that—

''(i) the revenues generated under the project are unlikely to be sufficient to cover the repayment obligations of the proposed loan; or

''(ii) the project is not otherwise consistent with the purposes of this subsection.

''(4) TERMS.—A loan made by the Secretary to an electric utility under this subsection shall—

''(A) be for a term of not to exceed 30 years; and

''(B) bear an annual interest rate that is 50 basis points more than the Federal funds rate established by the Board of Governors of the Federal Reserve System.

''(5) PRIORITY.—Notwithstanding any other provision of law, the debt to the Federal Government under a loan made to an electric utility under this subsection shall have priority in any case in which the electric utility files for bankruptcy protection under title 11, United States Code.

''(6) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated such sums as are necessary to carry out this subsection.

''(l) RECONSIDERATION.—

''(1) REVIEW.—

''(A) IN GENERAL.—Not later than January 15, 2017, and every 5 years thereafter, the Secretary shall review and make recommendations to Congress on the program established under this section.

''(B) ANALYSIS.—The review shall analyze whether—

''(i) the program established under this section has contributed to an economically harmful increase in electricity rates in regions of the United States;

''(ii) the program has resulted in net economic benefits for the United States; and

''(iii) new technologies and clean energy sources will advance the purposes of this section.

''(2) RECOMMENDATIONS.—The Secretary shall submit to Congress recommendations on whether—

''(A) the percentage of energy efficiency credits eligible to be submitted under subsection (b)(1) should be increased or decreased;

''(B) the percentage of clean energy electricity required under subsection (b)(1) should be increased or decreased; and

''(C) the definition of 'clean energy' should be expanded to reflect advances in technology or previously unavailable sources of clean or renewable energy.

''(3) REPORT.—Not later than January 15, 2017, the Secretary shall submit to Congress a report that describes any recommendations of the Secretary on changes to the program established under this section.

''(m) REGULATIONS.—Not later than 1 year after the date of enactment of this section, the Secretary shall promulgate regulations implementing this section.

''(n) TERMINATION OF AUTHORITY.—This section and the authority provided by this section terminate on December 31, 2050.''.

(b) TABLE OF CONTENTS AMENDMENT.—The table of contents of the Public Utility Regulatory Policies Act of 1978 (16 U.S.C. prec. 2601) is amended by adding at the end of the items relating to title VI the following:

''Sec. 610. Federal clean energy standard.''.

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